



SEQUENCE LISTING

<110> CHOO, YEN
ULLMAN, CHRISTOPHER GRAEME
CHUA, NAM-HAI
SANCHEZ, JUAN PABLO

<120> REGULATED GENE EXPRESSION IN PLANTS

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<141> 2000-12-07

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<151> 2000-05-30

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<150> GB 0001580.0
<151> 2000-01-24

<160> 34

<170> PatentIn Ver. 2.1

<210> 1
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 1
aaggagat aacaatg

17

<210> 2
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 2
gtcgaccatg

10

<210> 3

<211> 60
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 3
 ctcctgcagt tggacctgtg ccatggccgg ctggggcgca tagaatggaa caactaaagc 60

<210> 4
 <211> 995
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 4
 tctagagcgc cgccatggga gagaaggcgc tgccgggtggt gtataagcgg tacatctgct 60
 ctttcgcga ctgcggcgct gcttataaca agaactggaa actgcaggcg catctgtgca 120
 aacacacagg agagaaacca ttccatgtt aggaagaagg atgtgagaaa ggctttacct 180
 cgcttcatca cttAACCCGC cactcactca ctcatactgg cgagaaaaac ttcacatgtg 240
 actcggatgg atgtgacttg agatttacta caaaggcaaa catgaagaag cactttaaca 300
 gattccataa catcaagatc tgcgtctatg tgcgtctatg tgagaactgt ggcaaagcat 360
 tcaagaaaca caatcaatta aagggttcatc agttcagtca cacacagcag ctgcccgtatg 420
 cttggccctgt cgagtcctgc gatgcggcgt tttctcgctc ggatgagctt accccgcata 480
 tccgcatcca cacaggccag aagcccttcc agtgcgaat ctgcgtcggt aacttcagtc 540
 gtagtgcacca ctttaccacc cacatccgc cccacacagg cgagaaggctt tttgcctgtg 600
 acatttgcgg gaggaaatggt gccaggagtg atgaacgcaa gaggcataacc aaaatccatt 660
 taagacagaa ggacgcggcc gcactcgagc ggaattccgg cccaaaaaaag aagagaaagg 720
 tcggccccc gaccgatgtc agcgtgggg acgagctcca cttagacggc gaggacgtgg 780
 cgatggcgca tgccgacgcg cttagacgatt tcgatctgga catgttgggg gacggggatt 840
 ccccgccggcc gggatttacc ccccacgact ccggccctctg cggcgctctg gatacggccg 900
 acttcgagtt tgagcagatg ttaccgatg cccttggaaat tgacgagttac ggtggggaaac 960
 aaaaacttat ttctgaagaa gatctgttaag gatcc 995

<210> 5
 <211> 947
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 5
 tctagagcgc cgccatggga gagaaggcgc tgccgggtggt gtataagcgg tacatctgct 60
 ctttcgcga ctgcggcgct gcttataaca agaactggaa actgcaggcg catctgtgca 120
 aacacacagg agagaaacca ttccatgtt aggaagaagg atgtgagaaa ggctttacct 180
 cgcttcatca cttAACCCGC cactcactca ctcatactgg cgagaaaaac ttcacatgtg 240
 actcggatgg atgtgacttg agatttacta caaaggcaaa catgaagaag cactttaaca 300
 gattccataa catcaagatc tgcgtctatg tgcgtctatg tgagaactgt ggcaaagcat 360

tcaagaaaca caatcaatta aaggttcatac agttcagtca cacacagcag ctgccgtatg 420
cttgcctgt cgagtcctgc gatcgccgtc tttctcgctc ggatgagctt acccgccata 480
tccgcattca cacaggccag aagcccttcc agtgcataat ctgcattgcgt aacttcagtc 540
gtatgtacca ctttaccacc cacatccgca cccacacagg cgagaagcct tttgcctgtg 600
acatgtgg gaggaagttt gccaggagtg atgaacgcaa gaggcataacc aaaatccatt 660
taagacagaa ggacgcggcc gcactcgagc ggaattccgg cccaaaaaaag aagagaaagg 720
tcgaacttca gctgacttcg gatgcattag atgactttga cttagatatg ctaggatctg 780
acgcgctaga cgatttcgat ctggacatgt tggcagcga tgctctagac gatttcgatt 840
tagatatgtt tggctcgat gccctggat acttcgaccc cgacatgctg tcaagtcagc 900
tgagccagga aaaaaaactt atttctgaag aagatctgta aggtacc 947

<210> 6
<211> 14
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 6
aaggagat aaca 14

<210> 7
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 7
tgcgtggcg tgtacctgga tgggagacc 29

<210> 8
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 8
ccacgcgtcc atgggagaga aggcgctgcc ggtgg 35

<210> 9
<211> 44
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 9

ccactagtcc ttacagatct tcttcagaaaa taagttttt ttcc

44

<210> 10

<211> 148

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 10

cctctagatc ggtctccat ccaggtacac gcccacgcaa gtcggctccatccatccaggtta 60
caccggccacg caagtccgtc tcccatccag gtacacgccc acgcaagtccg gtctccatc 120
caggtacacg cccacgcaag aagcttcc 148

<210> 11

<211> 148

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 11

ggaagcttct tgcgtggcg tgtacctgga tgggagaccg acttgcgtgg gcgtgtacct 60
ggatgggaga ccgacttgcg tggcgtgtat cctggatggg agaccgactt gcgtggcg 120
gtacctggat gggagaccga tctagagg 148

<210> 12

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 12

ccagatctgg tctccatcc aggtacacgc ccacgcaaga tctcc

45

<210> 13

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

sequence

<400> 13
ggagatcttg cgtggcggt tacctggatg ggagaccaga tctcg 46

<210> 14
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 14
ccccatggtg agcaaggcg aggagctgtt cacc 34

<210> 15
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 15
ccgaattctt acttgtacag ctcgtccatg ccgag 35

<210> 16
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 16
ccctcgagcg gggtaaccgag ggcccg 28

<210> 17
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 17
cagttgaat tcttagagtcg cggccgctac 30

<210> 18
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 18
ccgctcgagg cccccccgac cgatgtcagc ctggggga 38

<210> 19
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 19
ccgctcgagt attaatttga gaatgaacaa aaaggacc 38

<210> 20
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 20
gccattaatc ggaatggag agaaggcgct gccggtgg 38

<210> 21
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 21
gcctattaat ttgagaatga acaaaaagga cc 32

<210> 22
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic zinc finger formula structure

<220>
<221> MOD_RES
<222> (1)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (3)..(6)
<223> Any amino acid and this region may encompass 2-4 amino acids

<220>
<221> MOD_RES
<222> (8)..(10)
<223> Any amino acid and this region may encompass 2-3 amino acids

<220>
<221> MOD_RES
<222> (12)..(16)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (18)..(19)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (21)..(23)
<223> Any amino acid

<400> 22
Xaa Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Phe Xaa Xaa Xaa Xaa Xaa
1 5 10 15

Leu Xaa Xaa His Xaa Xaa Xaa His
20

<210> 23
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic linker sequence

<400> 23
Thr Gly Glu Lys
1

<210> 24
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
linker sequence

<400> 24
Thr Gly Glu Lys Pro
1 5

<210> 25
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus
structure sequence

<400> 25
Pro Tyr Lys Cys Pro Glu Cys Gly Lys Ser Phe Ser Gln Lys Ser Asp
1 5 10 15
Leu Val Lys His Gln Arg Thr His Thr Gly
20 25

<210> 26
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus
structure sequence

<400> 26
Pro Tyr Lys Cys Ser Glu Cys Gly Lys Ala Phe Ser Gln Lys Ser Asn
1 5 10 15
Leu Thr Arg His Gln Arg Ile His Thr Gly Glu Lys Pro
20 25

<210> 27
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Illustrative

leader peptide

<400> 27
Met Ala Glu Glu Lys Pro
1 5

<210> 28
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic zinc finger 4 amino acid sequence, including the flanking sequence as used in the composite protein of the invention

<400> 28
Asn Ile Lys Ile Cys Val Tyr Val Cys His Phe Glu Asn Cys Gly Lys
1 5 10 15

Ala Phe Lys Lys His Asn Gln Leu Lys Val His Gln Phe Ser His Thr
20 25 30

Gln Gln Leu Pro
35

<210> 29
<211> 108
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic nucleotide sequence of zinc finger 4, including the flanking sequence

<400> 29
aacatcaaga tctgcgtcta tgtgtgccat tttgagaact gtggcaaagc attcaagaaa 60
cacaatcaat taaaggttca tcagttcagt cacacacagc agctgccg 108

<210> 30
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic construct sequence

<400> 30
ggtctccat caggtacacg cccacgca 28

<210> 31
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic construct sequence

<400> 31
ggtctcccat caggtacacg cgcacgca 28

<210> 32
<211> 11
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 32
ggatgggaga c 11

<210> 33
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA sequence

<400> 33
gcgtgggcgt 10

<210> 34
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: zinc finger framework

<220>
<221> MISC_FEATURE
<222> (1)..(2)
<223> Xaa = any amino acid Xaa may be present or absent

<220>
<221> MISC_FEATURE
<222> (4)..(8)
<223> Xaa = any amino acid

<220>
<221> MISC_FEATURE
<222> (5)..(8)
<223> Xaa may be present or absent

<220>
<221> MISC_FEATURE
<222> (10)..(23)
<223> Xaa = any amino acid

<220>
<221> MISC_FEATURE
<222> (19)..(23)
<223> Xaa may be present or absent

<220>
<221> MISC_FEATURE
<222> (25)..(30)
<223> Xaa = any amino acid

<220>
<221> MISC_FEATURE
<222> (28)..(30)
<223> Xaa may be present or absent

<220>
<221> MISC_FEATURE
<222> (31)..(31)
<223> Xaa = His or Cys

<400> 34

Xaa Xaa Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa His Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30